

TASK ORDER 12
Geotechnical Engineering Services
Coyote Percolation Dam Replacement Project
San Jose, California

Task Order No. 12

Title: Geotechnical Engineering Services for Coyote Percolation Dam Replacement Project

Agreement: Standard On-Call Consulting Agreement A4263A ("Agreement") Between the Santa Clara Valley Water District ("District") and Cal Engineering & Geology, Inc. ("Consultant"), dated May 28, 2019.

District Project Manager: Madhu Thummaluru


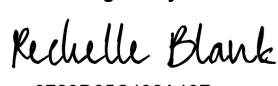
Consultant Project Manager: Dan Peluso

Dollar Amount of Task Order: Not-to-Exceed \$ 74,500.00

1. Upon full execution of this Task Order No. 12, as set forth in the Standard On-Call Consulting Agreement, Section Twelve Miscellaneous Provisions, subsection 13. Task Orders, and the issuance of a notice to proceed by the District Project Manager, the Consultant is hereby authorized to perform the Services described in Attachment A to this Task Order. Any costs incurred, Services performed or expenditures by the Consultant before this Task Order is executed or before the issuance of the notice to proceed will be considered outside the contracted scope of Services and will not be eligible for payment.
2. Both the Scope of Services to be performed and the deliverables to be provided in accordance with this Task Order are described in Attachment A which is attached hereto and incorporated by this reference. Attachment A shall include at a minimum the following:
 - A. The Consultant personnel to be assigned to perform the Services, including resumes if not previously provided to the District;
 - B. The total not-to-exceed fees amount for Consultant to complete the Services, including estimated number of hours required to perform the Services assigned to each Consultant classification;
 - C. Estimated cost of each other direct cost and reimbursable expense, including any applicable fees; and
 - D. Project schedule for completing the Scope of Services.
3. The Consultant shall be compensated at fixed fees or at the hourly rates established in Attachment One to the Schedule, Fees and Payments, of the Agreement. The Consultant agrees that it will provide all equipment, furnish all materials, except as may be otherwise noted, in the Attachment A.
4. This Task Order becomes effective on the date of full execution by authorized representatives of the Parties and remains in effect until the earlier of: termination of this Agreement or completion of the tasks set forth in Attachment A.

TASK ORDER 12
Geotechnical Engineering Services
Coyote Percolation Dam Replacement Project
San Jose, California

5. Copies of applicable local, state and federal permits required to perform the Services described in Attachment A are attached to this Task Order, unless the Consultant previously provided the appropriate permits to the District.
6. The Consultant shall perform all Services described in Attachment A to this Task Order in accordance with the Terms and Conditions of the Agreement.
7. Signatures:

| | | |
|------------|---|-----------------------------|
| Signature: |  _____ CAL ENGINEERING & GEOLOGY, INC. Daniel J. Peluso, G.E. Principal Engineer | 12-03-2020 _____ DATE |
| Signature: | <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0729D65C492A46F</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 2px; margin-right: 5px;">DocuSigned by:</div><div style="border-bottom: 1px solid black; width: 100%;"></div></div> <div style="display: flex; align-items: center; justify-content: center;"></div> | |



ATTACHMENT A





CAL ENGINEERING & GEOLOGY
785 Ygnacio Valley Rd. | Walnut Creek | CA 94596
6455 Almaden Expwy., Suite 100 | San José | CA 95120
23785 Cabot Blvd., Suite 321 | Hayward | CA 94545
www.caleng.com

November 20, 2020

Madhu Thummaluru, PE, GE
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118

RE: Revised Proposal for Geotechnical Engineering Services
Coyote Percolation Dam Replacement Project
San Jose, California

Dear Mr. Thummaluru:

At your request, Cal Engineering & Geology (CE&G) is pleased to submit this scope of work and cost proposal to provide geotechnical engineering services to the Santa Clara Valley Water District (Valley Water) for the Coyote Percolation Dam Replacement Project. The Coyote Percolation Dam is located in South San Jose, between Metcalf Park and Highway 101. The Percolation Dam was built in the 1930s, extending about 150 feet in length from north to south, and consists of a concrete slab with metal flashboards that rise about 10 feet high to maintain the water level for the Coyote Percolation Pond. A fish ladder and spillway with radial gates are located on the southern side of the structure. In 2018, the concrete apron immediately downstream of the dam was repaired with concrete and riprap and rock weirs were added to facilitate fish pools for the fish ladder.

As part of the replacement project, Valley Water plans to replace the existing flashboards with an inflatable rubber dam. To facilitate the installation, the concrete slab on the dam crest may need to be modified. A new control building will also be added to the project site. The purpose of this investigation is to provide Valley Water and the structural design team with soil properties to support the design of the project by completing a subsurface geotechnical investigation, performing laboratory testing for soil engineering properties, performing geotechnical engineering analysis, and providing geotechnical recommendations for the dam reconstruction.

This proposal has been revised to include a vibrating wire piezometer, environmental sampling and testing, and the control room being moved near boring B-1 (Boring B-2 has

been removed and Boring B-3 has been renumbered to B-2). A desk top study to summarize the available data is also included.

PROPOSED SCOPE OF SERVICES

Based on currently available information and our meetings with members of the Valley Water design team, CE&G proposes the following scope of services:

Task 1 – Project Management

CE&G will manage and coordinate our field investigation with Valley Water. It is assumed site access permission to each location will be provided. Previous scoping meetings with Valley Water have been included in our cost estimate.

Task 2 – Desk Top Study

CE&G will review available geologic and soils mapping in advance of our field investigation. Review of available pertinent information provided by Valley Water, including historical geologic studies, as-built drawings, and topographic maps.

We will summarize the findings from our data review into a desk top study memorandum. The memorandum will summarize the project, site conditions, subsurface soil conditions based on previous explorations, geologic conditions, and historical as-built drawings. Associated graphics and appendices containing the available data will also be included.

Task 3 – Field Investigation

Site reconnaissance of the site will be performed consisting of confirming drill rig access, photo documentation of the site, visually identifying key geologic and geomorphic features, marking of preliminary boring locations in the field, and notifying Underground Service Alert (USA) for utility marking. Drilling permits will be obtained through Valley Water, as explorations are planned to be deeper than 45 feet below the ground surface. It is assumed that the fee for the permit will be waived.

It is understood from conversations with Valley Water that the field investigation is to be performed between June 15, 2021, and December 30, 2021. We will coordinate with Valley Water to begin our fieldwork once the applicable permits have been approved.

We plan to perform two borings to facilitate our geotechnical design utilizing a truck-mounted drill rig. Boring B-1 is planned on the southern side of the dam, with B-2 along the northern side. Both borings are planned to extend approximately 80 feet below the ground surface and are used for engineering analysis of the dam. This is due to the ground

adjacent to the dam being approximately 15 feet higher than the dam crest. These borings are planned to be performed using mud rotary drilling techniques. The control room has been moved near Boring B-1. Actual drilled depths may be shallower if drill refusal is met. Drilling is scheduled to be completed over three days. Boring B-1 is planned to be near the Coyote Creek trail. We assume using cones to delineate our workspace is sufficient and flaggers are not needed for the potential pedestrian traffic near the planned boring.

Soil samples will be collected utilizing Standard Penetration Test Split Spoon Sampler and/or California Modified Sampler methods and blow count data obtained for use in engineering analysis. Soil samples will be taken generally at 5-foot intervals.

Soil and groundwater samples will also be collected for environmental testing. To acquire the groundwater sample, one of the borings will be drilled using hollow-stem augers until groundwater is encountered. Then the driller will switch to mud rotary drilling to complete the boring. Augers and samplers will be cleaned to minimize contamination for taking environmental samples. We will coordinate with Valley Water to determine the location and depths of the environmental samples.

At completion, borings will be backfilled with cement grout in accordance with Valley Water requirements. Soil cuttings will be drummed, analytically tested, and hauled off-site for proper disposal. Drums will be staged at the site pending analytical testing results and labeled as non-hazardous waste with CE&G contact information. If contaminated materials are encountered, testing and disposal charges will be added to our estimate. Stakes to identify the boring locations will be left on site for Valley Water surveyors to incorporate into their survey.

Boring B-1 to the south of the dam structure will be converted into a piezometer to monitor groundwater levels. The piezometer will consist of a vibrating wire that measures fluid pressure that is converted to a groundwater level. The piezometer is encased in filter sand with the cable extending to the ground surface that connects to a data logger to record the piezometer readings at twelve-hour intervals (2 times daily). The boring is then sealed with cement grout to the surface, in accordance with Santa Clara Valley Water District requirements. Once installed, CE&G field staff will monitor the piezometer by visiting the site a couple of weeks later to download the data and confirm the piezometer and data logger are recording. CE&G field staff will then return quarterly to download the data and replace batteries for the data logger. A total of three site visits over six months are included in our cost estimate to monitor the piezometer. Data will be reported via email to the project team as data is downloaded.

Task 4 – Laboratory Testing

Laboratory testing will be performed on selected soil samples retrieved from the borings to determine engineering properties and to confirm field classifications. Laboratory testing is anticipated to include, but is not limited to, moisture content, dry soil density, sieve analysis, Atterberg Limits, soil permeability, and soil shear strength. Also, two samples will be tested in accordance with Caltrans corrosion requirements, including Minimum Resistivity, pH, Chloride, and Sulfate.

Environmental soil and groundwater samples collected in the field will be tested for metals, pesticides, petroleum hydrocarbons, volatile organic compounds, and asbestos using EPA Test Methods. We have budgeted 3 soil samples and 1 groundwater samples to be tested.

Task 5 – Geotechnical Report

We will evaluate the boring logs and laboratory test results to estimate geotechnical engineering properties. Engineering analysis will include evaluating the seepage and stability of the planned improvements to the dam structure. One representative cross-section will be developed and analyzed using GeoStudio software. Based on our analysis, we will present our engineering judgment about the planned dam improvements. A liquefaction analysis will also be included as part of our engineering calculations. The results from the data review, subsurface exploration, laboratory testing, and engineering analysis will be used as the basis for the development of a geotechnical design report, with supporting graphics and data. This report will include the following:

- Introduction including site locations, descriptions, and purpose of the investigation;
- Figures including a site plan showing our boring location, site topography, and key site features; and applicable geologic mapping;
- Summary of the site geology and subsurface conditions;
- Boring logs and test results from the subsurface exploration and lab testing;
- Seepage and slope stability analysis of the planned conditions;
- Geotechnical design recommendations for the new control building, including allowable bearing pressure and minimum distance from the edge of the foundation to the slope face;
- Geotechnical design recommendations for the dam structure, including allowable bearing pressure under the dam concrete slab, friction resistance under the slab, soil pressures for retaining walls, and cutoff wall parameters if necessary.

A draft report will be provided for review and comment before a final report is issued.

Task 6 -Contract Specifications and Plans

CE&G will provide input and review into the geotechnical aspects of the contract specifications and 90% plans for the project. Valley Water will provide the sections for our review and comment. One round of comments has been budgeted for review of the plans and specifications.

Task 7 – Additional Drilling on Dam (Optional)

As an optional task, an additional boring at the dam crest may be needed to finalize design recommendations. It is anticipated due to the environmental permitting process, that this optional task would be performed at some time after the initial borings are completed. It is estimated this location may not be available for fieldwork until June 2021. This boring could be performed on the concrete slab of the dam, or with a barge equipped with a drill rig on the waterside of the dam. Boring B-3A and B-3B on the attached Boring Location Plan show the potential locations. This task and associated estimate assume Valley Water and environmental permitting would allow drilling on the dam crest. To complete this task, a concrete core through the concrete slab would be performed before a truck-mounted drill rig would be used to complete the boring. The boring would be drilled to a depth of 50 feet below the dam crest. The boring would be backfilled cement grout in accordance with Valley Water requirements. The concrete slab would be repaired with quick-set concrete above the boring. We estimate drilling would be performed over one day.

Once the boring is complete, additional lab testing would be performed to characterize the soils encountered. Analysis of the dam structure would be reviewed and updated based on the soils encountered. Results would be discussed with the Valley Water team and a report update produced to include the additional fieldwork and any updates to our geotechnical recommendations.

PRELIMINARY SCHEDULE

A preliminary project schedule is presented in Table 1. Valley Water has notified us that permitting to perform the field investigation may not be completed until June 2021. Our schedule below is based on when the permits are acquired and we have been notified to proceed with field work. Drill rig lead time is currently about 3 weeks. Laboratory test results are anticipated to be available about two weeks after the field investigation is complete, with our geotechnical analysis and report following about six weeks after lab testing results are available. The desk top study summarizing our data review is to be delivered February 2021.

Table 1. Preliminary Schedule

| Description | Approx. Weeks After Notice to Proceed |
|----------------------------------|--|
| Desk Top Study | February 2021 |
| Field Exploration | 3 Weeks |
| Laboratory Testing Results | 5 Weeks |
| Geotechnical Alternatives Report | 11 Weeks |

TERMS AND CONDITIONS

Cal Engineering & Geology will perform the above-described services on a time-and-expenses basis in accordance with the terms of our current On-Call contract. The estimated level of effort and associated costs to complete the work are presented in the attached table. We estimate the cost to complete the work described is **\$74,500**. A summary of our cost estimate is attached.

Should we become aware of a condition that could require a change to our scope of work and level of effort, and/or the extent of subcontracted geotechnical services needed, we will notify Valley Water staff immediately to come to an agreed-upon resolution.

ASSUMPTIONS

We have made the following assumptions in developing our scope of work, cost, and schedule:

- Permission to perform the field investigation work described herein will be granted and provided by Valley Water.
- No encroachment permit or traffic control is required.
- Subsurface exploration will be accomplished between the hours of 8 AM and 5 PM on non-holiday weekdays.
- Drilling subcontractors' fees are based on prevailing wage rates.
- Soil cuttings from the boring will not be contaminated and excess soil will be transported from the site and disposed of as clean soil.
- Valley Water design team will provide us with electronic copies of plans, topographic surveys, etc., to facilitate our analysis.
- Geotechnical engineering construction support has not been included in this cost estimate. Should the need arise, a separate task order will be issued for these services.

ADDITIONAL SERVICES

Additional services will be performed on a time-and-expenses basis according to the current on-call contract between CE&G and Valley Water. Our scope does not include addressing the potential presence of any hazardous material at the site or environmental studies, monitoring, or permitting that may be required.

EXECUTION

We understand Valley Water will issue a Task Order to our As-Needed Contract to authorize the above-described services. Our work will be completed in accordance with generally accepted geologic and geotechnical engineering practices and procedures. This standard is in lieu of all warranties either expressed or implied. We will begin work on the project upon written notice to proceed from Valley Water.

We look forward to working with you.

Sincerely,

CAL ENGINEERING & GEOLOGY, INC.



Paul Sorci, G.E. 3132
Senior Engineer



Chris Nardi, G.E. 628
Principal Engineer

Attachment: Proposed Boring Locations
Fee Estimate



B-3A to be performed depending upon site access to top of dam crest. Requires coring through concrete.
If B-3A is not accessible, B-3B would be performed over water utilizing a floating barge with a drill rig.

● Proposed Boring Location



6455 Almaden Expwy
Suite 100
San Jose, CA 95120
Phone (408) 440-4542

COYOTE PERCOLATION DAM REPLACEMENT
VALLEY WATER
SANTA CLARA COUNTY, CALIFORNIA
BORING LOCATION PLAN

P 200922

FIGURE 1

SEPTEMBER 2020

| 2020 CE&G Rates for Valley Water | STAFFING | | | | | | | | | | REIMBURSABLES (INCLUDES 5% MARKUP) | | | | | | | | Total Cost |
|--|------------------|-----------|-----------|-----------|----------|----------|------------------------------|-------------------|----------------|---------------|------------------------------------|--------------------------|-----------------|-----------------|--------------------|---------|---------------|-----------|------------|
| | Senior Principal | Principal | Associate | Senior | Project | Staff | Senior GIS / CADD Specialist | Project Assistant | Subtotal Hours | Subtotal Cost | Permits | Drilling Sub-/ Equipment | Concrete Coring | Utility Locator | Laboratory Testing | Mileage | Subtotal Cost | | |
| DESCRIPTION | \$267 | \$201 | \$161 | \$158 | \$105 | \$97 | \$91 | \$77 | | | | | | | | | | | |
| Task 1: Project Management and Coordination | | | | | | | | | | | | | | | | | | | |
| Project Management | 1 | 2 | 6 | | | | | 4 | 13 | \$ 1,943 | | | | | | | \$ - | \$ 1,943 | |
| Project Scope Development including Site Visit | | 1 | 8 | | | | | | 9 | \$ 1,489 | | | | | | \$ 25 | \$ 25 | \$ 1,514 | |
| Subtotal Hours | 1 | 3 | 14 | | | | | 4 | 22 | - | - | - | - | - | - | - | - | - | |
| Subtotal Cost | \$ 267 | \$ 603 | \$ 2,254 | \$ - | \$ - | \$ - | \$ - | \$ 308 | - | \$ 3,432 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 25 | \$ 25 | \$ 3,457 | |
| Task 2: Desk Top Study | | | | | | | | | | | | | | | | | | | |
| Data Review | | 1 | 2 | 6 | | | | | 9 | \$ 1,471 | | | | | | | \$ - | \$ 1,471 | |
| Desk Top Study | | 2 | 12 | 8 | | | | | 22 | \$ 3,598 | | | | | | | \$ - | \$ 3,598 | |
| Subtotal Hours | | 3 | 14 | 14 | | | | | 31 | - | - | - | - | - | - | - | - | - | |
| Subtotal Cost | \$ - | \$ 603 | \$ 2,254 | \$ 2,212 | \$ - | \$ - | \$ - | \$ - | - | \$ 5,069 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 5,069 | |
| Task 3: Field Investigation | | | | | | | | | | | | | | | | | | | |
| Field Coordination | | | 2 | | 6 | 2 | | | 10 | \$ 1,146 | | | | | | | \$ - | \$ 1,146 | |
| Site Reconnaissance / USA | | | | | 6 | | | | 6 | \$ 630 | | | | | | \$ 25 | \$ 25 | \$ 655 | |
| Permits (Valley Water) | | | | | | 2 | | | 2 | \$ 194 | | | | | | | \$ - | \$ 194 | |
| Drilling (3 Days) | | | 2 | | 30 | | | | 32 | \$ 3,472 | | \$ 26,500 | | | | \$ 75 | \$ 26,575 | \$ 30,047 | |
| Drum Removal | | | | | | 4 | | | | \$ 388 | | | | | | | \$ - | \$ 388 | |
| Vibrating Wire Piezometer Monitoring (3 total trips) | | | 2 | | | 12 | | | 14 | \$ 1,486 | | \$ 1,300 | | | | \$ 75 | \$ 1,375 | \$ 2,861 | |
| Traffic Control (None) | | | | | | | | | | \$ - | | | | | | | \$ - | \$ - | |
| Subtotal Hours | | | 6 | | 42 | 20 | | | 68 | - | - | - | - | - | - | - | - | - | |
| Subtotal Cost | \$ - | \$ - | \$ 966 | \$ - | \$ 4,410 | \$ 1,940 | \$ - | \$ - | - | \$ 7,316 | \$ - | \$ 27,800 | \$ - | \$ - | \$ - | \$ - | \$ 175 | \$ 27,975 | \$ 35,291 |
| Task 4: Laboratory Testing | | | | | | | | | | | | | | | | | | | |
| Geotechnical Laboratory Testing | | | 2 | | 4 | | | | 6 | \$ 742 | | | | | \$ 5,700 | | \$ 5,700 | \$ 6,442 | |
| Environmental Laboratory Testing | | | | | 2 | | | | 2 | \$ 210 | | | | | \$ 2,800 | | \$ 2,800 | \$ 3,010 | |
| Subtotal Hours | | | 2 | | 6 | | | | 8 | - | - | - | - | - | - | - | - | - | |
| Subtotal Cost | \$ - | \$ - | \$ 322 | \$ - | \$ 630 | \$ - | \$ - | \$ - | - | \$ 952 | \$ - | \$ - | \$ - | \$ - | \$ 8,500 | \$ - | \$ 8,500 | \$ 9,452 | |
| Task 5: Geotechnical Report | | | | | | | | | | | | | | | | | | | |
| Geologic Review | | 2 | | 4 | | | | | 6 | \$ 1,034 | | | | | | | \$ - | \$ 1,034 | |
| Seepage Analysis | | 2 | 4 | 8 | | | | | 14 | \$ 2,310 | | | | | | | \$ - | \$ 2,310 | |
| Stability Analysis | | 2 | 4 | 8 | | | | | 14 | \$ 2,310 | | | | | | | \$ - | \$ 2,310 | |
| Engineering Analysis | | 1 | 6 | 8 | | | | | 15 | \$ 2,431 | | | | | | | \$ - | \$ 2,431 | |
| Draft Geotechnical Report | | 4 | 12 | 28 | | | 10 | | 54 | \$ 8,070 | | | | | | | \$ - | \$ 8,070 | |
| Final Geotechnical Report | | 2 | 4 | 8 | | | 2 | | 16 | \$ 2,492 | | | | | | | \$ - | \$ 2,492 | |
| Subtotal Hours | | 13 | 30 | 64 | | | 12 | | 119 | - | - | - | - | - | - | - | - | - | |
| Subtotal Cost | \$ - | \$ 2,613 | \$ 4,830 | \$ 10,112 | \$ - | \$ - | \$ 1,092 | \$ - | - | \$ 18,647 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 18,647 | |
| Task 6: Contract Specifications | | | | | | | | | | | | | | | | | | | |
| Review Geotechnical Specs | | 1 | 4 | | | | | | 5 | \$ 845 | | | | | | | \$ - | \$ 845 | |
| 90% Plan Review | | 2 | 8 | | | | | | 10 | \$ 1,690 | | | | | | | \$ - | \$ 1,690 | |
| Subtotal Hours | | 3 | 12 | | | | | | 15 | - | - | - | - | - | - | - | - | - | |
| Subtotal Cost | \$ - | \$ 603 | \$ 1,932 | \$ - | \$ - | \$ - | \$ - | \$ - | - | \$ 2,535 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 2,535 | |
| Total Hours | 1 | 22 | 78 | 78 | 48 | 20 | 12 | 4 | 248 | - | - | - | - | - | - | - | - | - | |
| Total Cost | \$ 267 | \$ 4,422 | \$ 12,558 | \$ 12,324 | \$ 5,040 | \$ 1,940 | \$ 1,092 | \$ 308 | - | \$ 37,951 | \$ - | \$ 27,800 | \$ - | \$ - | \$ 8,500 | \$ 200 | \$ 36,500 | \$ 74,451 | |
| Task 7: Additional Drilling on Dam | | | | | | | | | | | | | | | | | | | |
| Field Coordination | | | | 4 | | 2 | | | 6 | \$ 826 | | | | | | | \$ - | \$ 826 | |
| Drilling (1 Day) | | | | | 10 | | | | 10 | \$ 1,050 | | \$ 5,800 | \$ 600 | | | | \$ 6,400 | \$ 7,450 | |
| Additional Lab Testing | | | | 2 | | | | | 2 | \$ 316 | | | | | \$ 2,000 | | \$ 2,000 | \$ 2,316 | |
| Update Report / Analysis | | 2 | 4 | 8 | | | | | 14 | \$ 2,310 | | | | | | | \$ - | \$ 2,310 | |
| Subtotal Hours | | 2 | 4 | 14 | 10 | 2 | | | 32 | - | - | - | - | - | - | - | - | - | |
| Subtotal Cost | \$ - | \$ 402 | \$ 644 | \$ 2,212 | \$ 1,050 | \$ 194 | \$ - | \$ - | - | \$ 4,502 | \$ - | \$ 5,800 | \$ 600 | \$ - | \$ 2,000 | \$ - | \$ 8,400 | \$ 12,902 | |